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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)	
P-4785-US	

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

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Typed or printed name _____

Application Number	Filed
10/500,896	March 3, 2004

First Named Inventor: ROTH, Shmuel

Art Unit	Examiner
2628	XU, KEVIN K

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 52,388
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

Signature

Guy Yonay
Typed or printed name

646-878-0800
Telephone number

March 5, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

Attorney Docket No.: P-4785-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	ROTH, Shmuel et al.	Examiner:	XU, Kevin K.
Serial No.:	10/500,896	Group Art Unit:	2628
Filed:	March 3, 2004		
Title:	ELECTRONIC COLOR DISPLAY FOR SOFT PROOFING		

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

A final Office action was issued in this application on December 28, 2006, setting a shortened statutory response period of three months. A response is due March 28, 2007. This request for pre-appeal review conference is therefore timely filed, and is accompanied by a Notice of Appeal and the appropriate fee. Kindly consider the attached Remarks.

Remarks/Arguments begin on page 2 of this paper.

REMARKS/ARGUMENTS

I. Background

Reproduction of color involves the creation of an accurate apparent color match between original and reproduction. In the age of digital information most of the reproduction process is performed digitally. The original slide is scanned to obtain a file containing the color data in terms of RGB values. The file is then converted to CMYK separations, and afterwards plates are created and installed on a press for print. To obtain color consistency, proofs are performed and examined in various stages of the process to ensure that each step is color-consistent with its previous step.

The RGB spectra reproduced by prior art CRT phosphors is very different from that of color inks and their overlaps. Moreover, in viewing the subtractive color combinations produced by color inks, the number of elementary colors integrated by the eye is larger than that of the standard RGB system. Certain colorimetric match to "in-gamut" colors may be possible; however, even if good colorimetric match between print and monitor may be achieved for one observer, such a match is not guaranteed for another observer. Moreover, typical RGB CRT systems are incapable of displaying many visible colors that may printed in color press applications. Due to these and other deficiencies, a CRT monitor cannot be used as an accurate device for color communication.

Embodiments of the present invention include a system and method for soft proofing using a non-CRT projection type monitor. The monitor may be based on a polychromatic light source that illuminates a spatial light modulator (SLM). Color may be achieved via filters that are placed in the optical path of the polychromatic light to create different primary color patterns. The different color patterns may be separated spatially or temporally, and the full color sensation is obtained by spatial or temporal integration of the separate patterns by the eye of a viewer.

II. Final Office Action

In the final Office action, the Examiner rejected claims 1-4, 6-13, 15-16 and 18-22 under 35 U.S.C. § 103(a), as being unpatentable over Karakawa (US Patent No. 6,304,237) in view of Lind (US Patent No. 6,069,601). For the reasons discussed below, the rejection is traversed.

Karakawa discloses a laser system for producing each of three monochromatic colors (red, green, and blue) for a transmissive LCD display. According to the Abstract, Karakawa discloses:

> A **monochromatic** red (R), green (G), blue (B) pulsed laser light source (FIG. 2) for use in a full color video/image display system particularly an LCD display system (FIG. 3), the **light source generating R, G, B laser beams** with minimum speckle noise, and having digital color space conversion incorporated within. (emphasis added).

However, as the Examiner conceded in the Office action, Karakawa fails to teach either (a) a proofed image or (b) chromaticies selected to define a viewed color gamut that covers the perceived color gamut of the set of inks when printed on the substrate.

In order to overcome this deficiency, the Examiner cited the Lind reference. Lind teaches soft proofing an image to be reproduced using a set of selected print colorants, wherein the display appearance is substantially spectrally matched to the set of printing colorants. According to the summary of the invention, Lind discloses:

> a method of forming a display panel for soft proofing an image to be reproduced using a set of selected printing colorants includes the steps of providing a **substrate, forming a first display layer on the substrate, forming a second display layer on the first display layer and forming a third display layer on the second display layer**. Each of the forming steps comprises the steps of depositing a layer of liquid pigmented materials... The display appearance is substantially spectrally matched to the set of printing colorants. (Lind col. 2, lines 44-55, emphasis added)

The Examiner therefore rejected the claims of the present application based on the assertion that it would have been obvious to combine teachings from the Karakawa and Lind references.

This rejection, however, is improper. The Examiner has simply plucked from these two references elements seemingly correlating to those of the present claims; however, as described below, combining the elements of these two references would not result in the device described in the present application. If at all, the result of such chimeral combination would be inoperable, or would perform in a manner unacceptably inferior to either of the references standing alone. Therefore, the combination based on the Examiner's hindsight reconstruction is an improper rejection.

III. Argument

The Lind reference describes a system in which a white light source is filtered by a set of three colored layers of cyan, magenta and yellow placed one on top of the other in alignment. The intensity of light passing through each layer may be controlled separately to determine the density of the filtering color. The colors of the filters are chosen to fit spectrally those of the printing colorants.

The device described by Lind is similar in the process of color printing, in which white light reflected from the paper is filtered by the ink layers and the overlap of inks. Therefore, the Lind apparatus is a **subtractive** color display. This is in stark contrast to the **additive** RGB display of Karakawa. It would not have been obvious to one of ordinary skill in the art to combine the teachings of the references.

The Examiner rightly stated that Lind does not teach that the defined viewed color gamut entirely covers a perceived color gamut of the set of inks when printed on the substrate. Specifically, the Examiner stated that the purpose of the Lind apparatus was to select printing colorants (i.e., view color gamut), wherein the display appearance is substantially spectrally matched to a set of printing colorants (i.e., perceived color gamut).

However, if one were to take the set of monochromatic laser lights from Karakawa and filter them through the layered apparatus described by Lind, **the spectral characteristics**

of the light would not change, because a monochromatic light filtered by any filter would still be monochromatic of the same wavelength (perhaps with the intensity reduced). Thus, including the teaching of Karakawa with the Lind apparatus would not operate to produce a device capable of changing a display's color gamut.

In particular, the ability of the Lind display to create a spectral match relies on the use of **spectrally wide** band white light. However, Karakawa uses monochromatic or **spectrally narrow** lasers. It is clear therefore, that combining Karakawa's monochromatic RGB lasers with Lind's color filters would not result in a spectral color match. Therefore, the combination would produce an inoperable or unacceptably inferior system.

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

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Registration No. 52,388

Dated: March 5, 2007

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